

Claims

1. A device for administering an active agent  
5 to the skin or mucosa of an individual comprising a  
laminated composite of:  
    (a) a backing layer;  
    (b) an active agent-permeable membrane, the  
backing layer and membrane defining  
10    (c) a reservoir therebetween that contains a  
formulation of the active agent, said reservoir having a  
smaller periphery than the backing layer and membrane such  
that a portion of the backing layer and membrane extends  
outwardly of the periphery of the reservoir;  
15    (d) a first peelable active agent formulation-  
impermeable layer that underlies the reservoir and a por-  
tion of said outwardly extending portion of the backing  
layer and membrane;  
    (e) an adhesive layer that underlies and covers  
20 the first peelable active agent formulation-impermeable  
layer and said outwardly extending portion of the backing  
layer and membrane;  
    (f) a second peelable active agent formulation-  
impermeable layer that underlies and covers the adhesive  
25 layer;  
    (g) a permanent heat seal about the periphery of  
the reservoir between the backing layer and the membrane;  
and  
    (h) a peelable heat seal between the membrane  
30 and the first peelable active agent formulation-  
impermeable layer located underneath and at a radius not  
less than that of the permanent heat seal, said permanent  
and peelable heat seals providing barriers to migration of  
components of the active agent formulation from the  
35 reservoir into the adhesive layer and said first and  
second peelable active agent impermeable layers being

bonded together such that when the second peelable layer is removed from the device the peelable heat seal is broken and the first peelable layer and underlying portion of the adhesive layer is removed therewith.

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2. The device of claim 1 wherein the adhesive is incompatible with one or more of the components of the formulation that permeate through the membrane to the skin or mucosa.

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3. The device of claim 1 wherein the backing layer is a laminated composite of at least one layer that is impermeable to the formulation and an inner heat-sealable layer.

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4. The device of claim 1 wherein the adhesive is an acrylic adhesive, the active agent is pindolol hydrochloride, and the formulation includes ethyl alcohol and glycerol monooleate.

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5. The device of claim 1 wherein the adhesive is an acrylic adhesive, the active agent is nicardipine hydrochloride, and the formulation includes ethyl alcohol and glycerol monooleate.

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6. The device of claim 1 wherein the adhesive is a silicone adhesive, the active agent is calcitriol and the formulation includes ethanol, methyl laurate, and water.

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